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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,932	11/13/2003	Chunqiang Tang	200308654-1	6564

22879 7590 07/16/2007  
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FORT COLLINS, CO 80527-2400

EXAMINER
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PONIKIEWSKI, TOMASZ

ART UNIT	PAPER NUMBER
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2165

MAIL DATE	DELIVERY MODE
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07/16/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/705,932

Applicant(s)

TANG ET AL.

Examiner

Tomasz Ponikiewski

Art Unit

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 April 2007.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 12-24 is/are rejected.
- 7) ☒ Claim(s) 5-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/18/2007 has been entered.
2. The Amendment filed on 4/18/2007 has been received and entered. Claims 1-24 are pending.
3. The amendment overcomes the objections are some rejections under 112 and 101.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

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5. Claims 1-4 and 12-24 are rejected under 35 U.S.C. 102(a) as being anticipated by Arturo Crespo, Hector Garcia-Molina "Routing Indices For Peer-To-Peer Systems", from here on Crespo.

As per claims 1, 14 and 18 Crespo is directed to executing a search in a peer-to-peer system, the method comprising:

receiving a query at a destination node (section 3.1 lines 3-4);

receiving samples from a first set of nodes proximally located to the destination node in an overlay network for the peer-to-peer system, the samples associated with information stored at the proximally located nodes (section 4, second column , lines 18-19); and

identifying, based on the samples received from the first set of nodes, a first node of the first set of nodes likely storing information associated with objects stored in the peer-to-peer system that are relevant to the query (section 4, second column , lines 37-40).

storing forwarding information for the identified first node of the first set of nodes likely storing information associated with objects stored in the peer-to-peer system that are relevant to the query (section 4.2, lines 8-15, lines 18-20).

As per claims 2, 15 and 19 Crespo is directed further comprising:

comparing the query to information stored in the first node; wherein the information stored in the first node is associated with objects stored in the peer-to-peer network (section 3.1 lines 3-11); and

generating search results including information stored in the first node associated with objects relevant to the query based on the comparison of the query to the information stored in the first node (section 3.1, lines 13-17, lines 21-27).

As per claims 3, 16 and 20 Crespo is directed to further comprising:

determining whether a quit threshold has been reached (section 3.1, lines 18-21);

transmitting the search results to an initiator of the query in response to the quit threshold being reached (section 3.1, lines 9-10); and

performing the following steps in response to the quit threshold not being reached:

identifying a second node likely storing information associated with objects stored in the peer-to-peer network that are relevant to the query based on samples received from a second set of nodes including the second node, wherein the second set of nodes are nodes proximally located to the first node in the overlay network (section 4, lines 6-12); and

adding information stored in the second node to the search results; the added information being associated with objects that are relevant to the query (section 3.1, lines 9-10).

As per claims 4, 17 and 21 Crespo is directed to wherein the quit threshold is associated with at least one of hops in the overlay network and whether the search results can be improved by adding information to the search results from the second node (section 5.1, second column, lines 6-12).

As per claim 12 Crespo is directed to wherein the first set of nodes are neighbor nodes to the destination node in the overlay network (section 3.1, lines 7-8).

As per claim 13 Crespo is directed to wherein the second set of nodes are neighbor nodes to the first node in the overlay network (section 3.1, lines 7-11).

As per claim 22 Crespo is directed to a peer-to-peer system comprising:

- a plurality of nodes in the system operating as a search engine operable to execute a query received by the search engine (section 3.1, lines 1-3);
- an overlay network implemented by the plurality of nodes (section 4.1, lines 5-6);
- a plurality of indices stored at the plurality of nodes, each index including at least one semantic vector for an object (section 4, second column, lines 16-21);

wherein a first node in the search engine is operable to receive samples from nodes proximally located to the first node in the overlay network, the first node utilizing the samples to identify an index of one of the other nodes to search in response to receiving the query (section 4.2, lines 8-15, lines 18-20).

As per claim 23 Crespo is directed to wherein similar semantic vectors are stored at nodes proximally located in the overlay network (section 4.2, lines 8-15, lines 18-20).

As per claim 24 Crespo is directed to wherein the first node is located in a region in the overlay network and the first node is operable to store indices from nodes in the region, such that the first node is operable to search a plurality of indices likely to include information relevant to the query without forwarding the query to other nodes in the region (section 4.2, lines 8-15, lines 18-20).

#### ***Allowable Subject Matter***

6. Claims 5-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

7. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

#### ***Conclusion***


8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tomasz Ponikiewski whose telephone number is (571)272-1721. The examiner can normally be reached on 8:00-4:30.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey A. Gaffin can be reached on (571)272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tomasz Ponikiewski  
July 9, 2007

  
JEFFREY GAFFIN  
SUPERVISORY PATENT EXAMINER  
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